

What is claimed is:

1. A method of identifying a therapeutic agent for treating a *Chlamydia* spp. infection, the method comprising:

5 providing a cyclophilin polypeptide;
contacting said cyclophilin polypeptide with a test agent; and
determining whether said test agent binds said cyclophilin polypeptide,
wherein binding of said test agent to said cyclophilin polypeptide indicates said
test agent is a therapeutic agent for treating a *Chlamydia* spp. infection.

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2. The method of claim 1, wherein said cyclophilin polypeptide is provided as a substantially purified cyclophilin polypeptide.

15 3. The method of claim 1, wherein said cyclophilin polypeptide is cyclophilin A, cyclophilin B, cyclophilin C, or cyclophilin D.

4. The method of claim 1, wherein said cyclophilin polypeptide includes a label.

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5. The method of claim 4, wherein said label is biotin.

6. The method of claim 2, wherein said cyclophilin polypeptide is provided attached to a substrate.

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7. The method of claim 6, wherein said substrate comprises a plurality of cyclophilin polypeptides.

8. The method of claim 7, wherein said substrate comprises one or more of
30 cyclophilin A, cyclophilin B, cyclophilin C, cyclophilin D, or a mixture thereof.

9. The method of claim 6, wherein said cyclophilin polypeptide is provided on said substrate at one or more addressable locations.

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10. The method of claim 6, wherein said substrate is a planar surface.

11. The method of claim 6, wherein said substrate is a bead.

12. The method of claim 1, wherein said cyclophilin polypeptide is provided associated with a *Chlamydia* cell.

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13. The method of claim 12, wherein said cyclophilin polypeptide includes a label.

14. The method of claim 13, wherein said label is biotin.

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15. The method of claim 12, wherein said association is by binding of said cyclophilin polypeptide to a *Chlamydia* polypeptide.

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16. The method of claim 12, wherein said cyclophilin is provided in association with a *Chlamydia* elementary body.

17. The method of claim 16, wherein said association of cyclophilin and *Chlamydia* cell is by binding of said cyclophilin polypeptide to a *Chlamydia* polypeptide.

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18. The method of claim 16, wherein said *Chlamydia* cell is a *Chlamydia trachomatis* cell.

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19. The method of claim 16, wherein said *Chlamydia* cell is a *Chlamydia pneumoniae* cell.

20. A method for identifying a cyclophilin-binding *Chlamydia* polypeptide,
the method comprising: /
providing a sample comprising a *Chlamydia* polypeptide;
contacting said sample with a cyclophilin polypeptide under conditions allowing
5 for formation of a complex between at least one *Chlamydia* protein in said sample and
said cyclophilin polypeptide;
detecting said complex; and
identifying said at least one cyclophilin-binding *Chlamydia* polypeptide in said
complex.

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21. The method of claim 20, wherein said complex is detected with an anti-
cyclophilin antibody.

22. The method of claim 21, wherein said complex is detected with a
15 monoclonal anti-cyclophilin antibody.

23. A method for identifying a therapeutic agent for treating a *Chlamydia*
infection, the method comprising /
providing a sample comprising a *Chlamydia* polypeptide and a cyclophilin
20 polypeptide;
contacting said sample with a cyclophilin probe under conditions that allow for
formation of a complex between said cyclophilin probe and said *Chlamydia* polypeptide;
detecting said complex; and
identifying said *Chlamydia* polypeptide in said complex,
25 thereby identifying a therapeutic agent for treating a *Chlamydia* infection.

24. The method of claim 23, wherein said *Chlamydia* polypeptide includes a
label.

30 25. The method of claim 24, wherein said label is biotin.

26. The method of claim 23, wherein said cyclophilin probe is an anti-cyclophilin antibody.

27. A purified complex of a cyclophilin polypeptide and a *Chlamydia* protein
5 selected from the group consisting of a T776 polypeptide, 30 kD polypeptide, a 40 kDa polypeptide, and a *Chlamydia* major outer membrane protein (MOMP).

28. A method of identifying a therapeutic agent for treating a *Chlamydia* infection, the method comprising:
10 providing a *Chlamydia* cell;
contacting said cell with an agent that inhibits at least one activity of a cyclophilin polypeptide; and
determining whether said agent inhibits the pathogenicity of said *Chlamydia* cell, wherein inhibition of pathogenicity of said *Chlamydia* cell indicates said agent is
15 a therapeutic agent for treating *Chlamydia*.

29. A method of identifying an agent that inhibits infection of a eukaryotic host cell by a *Chlamydia* cell, the method comprising
providing a *Chlamydia* cell;
20 contacting said cell with an agent that inhibits at least one activity of a cyclophilin polypeptide; and
determining whether said agent inhibits infection of said *Chlamydia* cell.

30. A method for identifying a compound that interferes with the formation of
25 a complex between a *Chlamydia* cell and a cyclophilin polypeptide, the method comprising:
(a) producing a cyclophilin affinity fusion protein;
(b) preincubating a compound with the cyclophilin affinity fusion protein of step (a);
30 (c) adding a *Chlamydia* sample to the incubate of step (b) under conditions which permit *Chlamydia* and the cyclophilin affinity fusion protein to form a complex;

(d) contacting the incubate of step (c) with an affinity medium under conditions that allow the *Chlamydia*-cyclophilin affinity fusion protein complex to bind to said affinity medium;

5 (e) determining the amount of said *Chlamydia*-cyclophilin affinity fusion protein complex formation by comparison to a control sample lacking said compound; wherein reduced binding of *Chlamydia* to the cyclophilin affinity fusion protein is indicative of the ability of said compound to inhibit said complex formation.

10 31. The method of claim 30, wherein the cyclophilin in said cyclophilin fusion polypeptide is selected from the group consisting of cyclophilin A, cyclophilin B, cyclophilin C, and cyclophilin D.

15 32. The method of claim 30, wherein the cyclophilin affinity fusion protein is a glutathione S-transferase-cyclophilin (GST-cyclophilin) fusion protein.

33. The method of claim 30, wherein the affinity medium comprises glutathione-agarose beads.

20 34. A method for identifying a compound capable of interfering with the formation of a complex between a cyclophilin polypeptide and a *Chlamydia* affinity fusion protein, the method comprising:

(a) producing a *Chlamydia* affinity fusion protein;

(b) preincubating a compound with the *Chlamydia* affinity fusion protein of step (a);

25 (c) adding a cyclophilin polypeptide to the incubate of step (b) under conditions which permit the cyclophilin and the *Chlamydia* affinity fusion protein to form a complex;

(d) contacting the incubate of step (c) with an affinity medium under conditions that enable the cyclophilin-*Chlamydia* fusion protein complex to bind said

30 affinity medium;

(e) determining the amount of said cyclophilin-*Chlamydia* affinity fusion protein complex formation by comparison to a control sample lacking said compound; wherein reduced binding indicates said compound inhibits cyclophilin-*Chlamydia* affinity fusion protein complex formation.

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35. The method of claim 34, wherein the cyclophilin employed is selected from the group consisting of cyclophilin A, cyclophilin B, cyclophilin C, and cyclophilin D.

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36. The method of claim 34, wherein the affinity medium comprises glutathione-agarose beads.

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37. The method of claim 34, wherein the cyclophilin is labeled with a label selected from the group consisting of a fluorescent label, a radioactive label, and a chemiluminescent label.